

## **SOUTH AFRICAN RADIO LEAGUE NEWS FOR SUNDAY 24 MAY 2020**

Good morning and welcome to the weekly news bulletin of the South African Radio League read by ..... [your name, call sign and QTH]

The South African Radio League broadcasts a news bulletin each Sunday in Afrikaans as well as in English at 08:15 and 08:30 Central African Time respectively on HF and various VHF and UHF repeaters around the country. The bulletin is relayed on Echolink by Johan, ZS6JPL. The audio and text bulletins may be downloaded from the League website at [www.sarl.org.za](http://www.sarl.org.za). To join the bulletin mailing list, send an e-mail to the SARL Secretary.

In the news today:

**AMATEUR RADIO TODAY IS AS RELEVANT AS IT WAS 95 YEARS AGO**  
**VENERABLE AO-7 SATELLITE CONTINUES TO DELIVER**  
and

### **LOCAL SPECIAL EVENT STATIONS**

Stay tuned for more information on these and other interesting news items.

We begin this bulletin with the news of a silent key:

It is with great sadness that we have to inform you that the key of Garfield Brian Blake, ZR6ESJ, went silent on Wednesday 6 May 2020. He suffered from Guillain-Barré (gee-YAH-buh-RAY) syndrome.

We extend our condolences to his wife, family and friends.

PAUSE

### **AMATEUR RADIO TODAY IS AS RELEVANT AS IT WAS 95 YEARS AGO**

On 20 May 1925, the South African Radio Relay League (SARRL) was formed, just a month after the world's radio amateurs met in Paris to form the world body, the International Amateur Radio Union. In a media statement about the SARL 95th anniversary, President Nico van Rensburg, ZS6QL said, "Amateur Radio has withstood the test of time because it is based on three major guiding principles: Communication between people, continuous technological development and self-education and training".

Amateur Radio's history dates back to the days of Marconi and other early radio experimenters. In the last years of the 19th century they stunned the

world by showing that it was possible to communicate wirelessly. In South Africa, the early radio experiments were carried out by a telephone technician, Alfred Jennings, in Port Elizabeth who demonstrated wireless communication as early as 1899. Radio amateurs in various parts of South Africa established wireless associations which were amalgamated in 1925 into one national body, the SARRL. The word 'Relay' was dropped in 1947.

It was the experimenters in the amateur radio fraternity who, in the early days of radio, proved that shortwaves propagate around the world. In modern days they showed the world the value of low earth orbiting satellites, today the backbone of GPS and soon the broadband satellite connectivity, once Elon Musk's Starlink constellation is complete.

Since the beginning of the amateur radio service at the dawn of the previous century, radio amateurs have made significant contributions to radio technology and the understanding of radio science. This work continues today, as the primary purpose of the amateur radio service is the "continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art."

Recent advances in the fields of computing, software defined radio and signal processing provide unprecedented opportunities to meet this mandate. These opportunities are already beginning to be realised with the advent of systems such as the Reverse Beacon Network (RBN), the Weak Signal Propagation Reporting Network (WSPRNet) and PSKReporter. In addition to enabling radio amateurs to make and contribute legitimate scientific observations, it will expose amateur radio to a wider community of people around the world interested in science.

On the science front of Amateur Radio, the SARL is collecting data about the radio frequency noise floor. RF noise monitoring is part of an international campaign to quantify the increases in the RF noise floor because of the widespread use of devices that generate noise as an unintended consequence. The rapid increase in the radio frequency noise floor is of great concern as the reliance on radio is increasing at an exponential rate. Just think of cell phones, wireless internet connection and the whole world of IoT.

The South African Radio League has developed a monitoring system powered by a Raspberry Pi and an RF dongle. There are currently too few monitoring points, hence the SARL is planning to reach out to universities and technical high schools to join the project and set up monitoring receivers on their campuses. Currently only a few radio amateurs are participating in the project but once the lockdown is something of the past, it is hoped that more radio amateurs, universities and high school science clubs will become involved.

Radio Amateurs pioneered low earth orbit satellite communication and recently gained access to the first amateur radio geostationary satellite providing 24 hour communication across Africa, Europe and the Near East. A South African group, AMSAT SA, is currently constructing a Software Defined Radio (SDR)

powered CubeSat as part of its ongoing amateur radio satellite technology development.

Nico van Rensburg ZS6QL has said that one of the pillars of Amateur Radio is communication. It has withstood all the challenges of the internet and the mobile phone. Amateur Radio was in fact the world's first social network, decades before Twitter and Facebook. Talking to and making friends all over South Africa and the world is unchallenged and will always remain the reason why many remain involved and the younger generation is showing increasing interest. It is the magic of the ether waves that draws people together. As one of the astronauts speaking from the international space station said to a young person via an amateur radio link, "the magic of radio surpasses everything, even here in space!"

### **MY PROJECT**

Get your "My Project" article in to Radio ZS by Tuesday 26 May to stand in line to win the second SARL Membership. Send that article to [radiozs@arl.org.za](mailto:radiozs@arl.org.za)

You are listening to a news bulletin of the South African Radio League.

### **VENERABLE AO-7 SATELLITE CONTINUES TO DELIVER**

The nearly 46-year-old AO-7 amateur satellite made a remarkable contact possible on 4 May between Diego Feil, LW2DAF, in Buenos Aires, Argentina (GF05RK), and Tom Ambrose, ZS1TA, in Cape Town, South Africa (JF95FX). The contact spanned 6 966,85 km across the South Atlantic, with both stations aiming at only 2 or 3 degrees above the horizon.

Both stations had been watching orbital predictions for several weeks and the times they could "see" AO-7 at the same time occurred only occasionally. Electrical noise, particularly in Cape Town, had hampered earlier efforts, but on the morning of 4 May, noise levels were low; a perfect contact was possible with a full exchange of call signs and reports.

In 2016, Dave Swanson, KG5CCI, in Arkansas, and Eduardo Erlemann, PY2RN, in Brazil, achieved a distance milestone on AO-7, completing a scheduled contact that covered a calculated distance of just over 8 012,9 km, which Swanson at the time said was "way beyond the theoretical range of AO-7" and a feat that "the math said shouldn't be possible." (Thanks to AMSAT News Service)

### **LOCAL SPECIAL EVENT STATIONS**

**There are two local special event stations you can look out for. ZS95SARL celebrates the 95<sup>th</sup> birthday of the SARL and ZS1820S celebrates the 200<sup>th</sup> anniversary of the landing of the 1820 Settlers. Both call signs are active on HF and ZS95SARL has been active on satellites as well.**

During October, the Astronomical Society of South Africa will be celebrating its 200<sup>th</sup> anniversary. It was established in Cape Town in October 1820. Here is an opportunity for another special event station.

#### **A NEW SATELLITE BOOK AND DUAL BAND YAGI AVAILABLE**

The new ARRL “Amateur Radio Satellites for Beginners” is now available in South Africa. You can find all the information you need to make contacts through amateur radio satellites and even with the International Space Station in this book.

The AMSAT SA 2 m/70 cm handheld Yagi is again available. For more details on the Satellite Book and the Yagi, visit [www.amsatsa.org.za](http://www.amsatsa.org.za).

#### **CONTEST RESULTS**

The first leg of the AWA Valve QSO party was held on the 2 and 3 May 2020 8 logs were submitted for the AM section with 30 participating call signs. 13 logs were submitted for the SSB section with 117 participating call signs.

##### **AM**

1st Thanie Gibson, ZS4AZ - 40 points FT101

2nd Johan van Zijl, ZS4DZ - 36 points FT101

3rd Helge Braithwaite, ZS6HB - 12 points FT101B

##### **SSB**

1st Henry Stephan, ZS6MC - 132 points Collins S Line

2nd Helge Braithwaite, ZS6HB - 112 points TS 830s

3rd Johan van Zijl, ZS4DZ - 110 points FT101

Thanks to all who made this such a success.

The contest committee received 18 logs for the POP Sprint held on Wednesday 13 May 2020.

1st Christie Grobbelaar, ZS4CGR - 62 points

2nd Ludwig Combrink, ZS5CN and Sid Tyler, ZS5H - 50 points

4th Johan van Zijl, ZS4DZ - 47 points

## **PROPAGATION REPORT**

Hannes Coetzee, ZS6BZP, reports that the solar activity is expected to remain at low levels. There are currently no sunspots visible on the solar disk. If you want to do your own frequency predictions, the expected effective sunspot number for the week will be around one. The 15 to 30 m bands will, especially around sunrise and sunset, provide some good DX fun. Please visit the website [spaceweather.sansa.org.za](http://spaceweather.sansa.org.za) for further information.

Finally, a diary of some upcoming events:

30 and 31 May – the CQ WPX CW contest

6 June – the SARL VHF/UHF QSO party

14 June – the Hammies Sprint

16 June – the SARL Youth Sprint (Youth Day)

17 June – World QRP Day

18 to 22 June – the SARL Top Band QSO party

20 June – Winter Solstice

To conclude our bulletin, a quick overview of our main news item:

On 20 May 1925, the South African Radio League (SARL) was formed, just a month after the world's radio amateurs met in Paris to form the world body, the International Amateur Radio Union.

In a media statement about the SARL 95th anniversary President Nico van Rensburg ZS6QL said, "Amateur Radio has withstood the test of time because it is based on three major guiding principles: Communication between people, continuous technological development and self-education and training".

This concludes our bulletin for this morning.

We invite clubs and individuals to submit news items of interest to radio amateurs and shortwave listeners, in both English and Afrikaans, if possible, by following the News Inbox link on the South African Radio League web page. News items to include in the bulletin should reach the news team no later than the Thursday preceding the bulletin date.

You are welcome to join us every Sunday morning for the weekly radio program, Amateur Radio Today at 10:00 Central African Time. The program can be

heard on VHF and UHF repeaters countrywide and on 7 082 kHz lower side-band. A rebroadcast by Andy, ZS6ADY, can be heard on Monday evenings at 19:30 Central African Time on 3 620 kHz. We welcome your signal reports, comments and suggestions; please send these by e-mail to [artoday@sarl.org.za](mailto:artoday@sarl.org.za).

You have listened to a news bulletin compiled by Andy Cairns, ZS6ADY, edited by Paul Johnson ZS1S and read by .....

From the news team, best wishes for the week ahead.